

## **Tatlawiksuk River weir**

**Abstract:** Tatlawiksuk River salmon escapements were annually monitored from 1998 through 2001 using weir designs that evolved over time. Total annual escapements of Chinook salmon *Oncorhynchus tshawytscha* were 1,494 fish in 1999, 817 fish in 2000 and 2,011 fish in 2001. The project ended prematurely on 7 July in 1998, and only 970 Chinook salmon were actually observed; however, some speculation on the 1998 total annual Chinook escapement is discussed. Total annual escapement of chum salmon *O. keta* was 9,656 fish in 1999, 7,044 fish in 2000 and 23,718 fish in 2001. Only 5,726 chum salmon were actually observed in 1998; however, some speculation on the 1998 total annual chum escapement is discussed. Total annual escapement of coho salmon *O. kisutch* was 3,449 fish in 1999 and 10,501 fish in 2001. No coho salmon were observed in 1998 because of the premature termination of project operations. The project ended prematurely on 14 August in 2000; 5,756 coho salmon were actually observed, but some speculation is offered on the total annual coho escapement in 2000.

The age-sex-length (ASL) composition of the total annual Chinook escapements was not estimated for any of the years of operations because of difficulty in obtaining adequate numbers of fish for sampling. The ASL compositions of the total annual chum salmon escapements in 1999, 2000 and 2001 were generally consistent with trends seen at other escapement monitoring projects in the Kuskokwim River drainage. The ASL compositions of the total annual coho salmon escapements in 1999 and 2001 were also generally consistent with historic trends seen elsewhere in the Kuskokwim River drainage.

The Alaska Board of Fisheries classified Kuskokwim River Chinook and chum salmon as “stocks of concern” in early 2001, which is inclusive of the populations spawning in the Tatlawiksuk River. It is believed that escapements to the Tatlawiksuk River benefited from the consequent closure of the Kuskokwim River commercial fishery in June and July 2001, and from the institution of the weekly subsistence fishing schedule. The total annual escapements of Chinook and chum salmon in 2001 were substantially greater than were observed in 1999 or 2000. Still, the adequacy of the Chinook, chum and coho salmon escapements is unclear because of the lack of formal escapement goals for the Tatlawiksuk River.

Coho salmon have not been classified as a stock of concern; however, annual run abundance to the Kuskokwim River has declined since 1996 resulting in reduced commercial harvests and variable escapement levels. Likewise, the coho escapements to the Tatlawiksuk River have also been variable. Assessments of coho escapements to the Tatlawiksuk River have been difficult due to persistent challenges with high water conditions in late summer that seem to be especially prominent in the Tatlawiksuk River drainage.

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